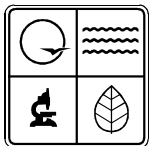


Environmental Directory for Rural Property



Missouri Department of Natural Resources

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Environmental Directory for Rural Property

Rural property can vary from individual homes on lots and small hobby farms to large acreages, huge agribusiness facilities and industrial sites. Much Missouri property has few use restrictions or zoning requirements at the local or county level. Health, utility and sanitation services that are commonly provided in cities may be the responsibility of property owners in rural areas. This directory is intended to give information and assistance to persons who wish to protect their environment and have a safe and healthful lifestyle.

Throughout this publication the following agencies should be recognized as divisions, programs or units of the Department of Natural Resources (“the department”): Air and Land Protection Division (ALPD); Water Protection and Soil Conservation Division (WPSCD); Geological Survey and Resource Assessment Division (GSRAD), and Outreach and Assistance Center (OAC).

Wells and Surface Water

Water wells are the source of drinking water for many Missourians. Abandoned or defective wells and other types of borings can pollute aquifers. Pollutants such as nitrates, bacteria, gasoline and pesticides can enter groundwater through open abandoned wells or seep in around the borehole of a damaged or defective well that is currently in use. Pollutants may contaminate springs and surface water supplies used for drinking water.

CONCERN	ACTION OR REQUIREMENT	AGENCY/ CONTACT	PHONE NUMBER	ADDITIONAL INFORMATION
Drinking water safety	Testing of private water supply	County Health Departments	Office in county seat	<ul style="list-style-type: none">Nitrate and bacterial contamination are particularly harmful to babies and young animals. Call 1-800-361-4827 to receive the publications on <i>Water Testing</i> , <i>Bacteria in Drinking Water</i> and <i>Nitrate in Drinking Water</i> .

CONCERN	ACTION OR REQUIREMENT	AGENCY/ CONTACT	PHONE NUMBER	ADDITIONAL INFORMATION
Water well drilling	Driller permitting Well certification Wellhead protection	GSRAD	(573) 368-2165	<ul style="list-style-type: none"> • GSRAD can verify permits of well drillers upon request. • Certification information is available for wells installed since 1987 and for some wells installed before that date. • Technical assistance and construction standards for well drillers help to assure proper well construction. • GSRAD can provide well owners with troubleshooting information for problems.
Unused or abandoned well or cistern plugging	Proper plugging method and registration	GSRAD	(573) 368-2165	<ul style="list-style-type: none"> • Humans and animals can be injured or die from falling into wells and cisterns. • Properly plugging wells and cisterns prevents surface water from contaminating aquifers. • Registration of plugged wells is maintained and may be checked by calling GSRAD. Call 1-800-361-4827 to request the technical bulletin <i>Eliminating an Unnecessary Risk: Abandoned Wells and Cisterns</i>.
Sinkholes, springs and caves	Protection of groundwater resources	GSRAD	(573) 368-2161	<ul style="list-style-type: none"> • Advises about land use in the area of a sinkhole. • Gives information on spring tracing, cave systems and spring water sources.
Abandoned mines, surface or shaft type	Reclamation	ALPD Land Reclamation Program	(573) 751-4041	<ul style="list-style-type: none"> • Assistance with revegetation and improving water quality is available. • Erosion, acid runoff, metal contamination, possible collapse and unstable soils are potential problems. • Some sites may have bonds available to fund reclamation.

Fuels and Hazardous Chemicals

Fuels and industrial chemicals are stored, transported and used in rural areas. Spillage, road accidents, storm water runoff and improper disposal are ways that materials can be dispersed into the rural environment.

CONCERN	ACTION OR REQUIREMENT	AGENCY/ CONTACT	PHONE NUMBER	ADDITIONAL INFORMATION
Spills, leaks, accidental rupture of a container, abandoned containers of unidentified chemicals	Emergency response, containment and cleanup	ALPD Environmental Emergency Response	24 hours/day (573) 634-2436 non-emergency (573) 526-3315	<ul style="list-style-type: none"> • Hazardous chemicals include poisonous, infectious and radioactive materials, explosives, flammable and combustible substances, and reactive or corrosive materials. • Be aware of possible chemical interactions. • Do not touch or smell suspected hazardous substances and avoid vapor clouds.
Underground storage tanks (UST) containing petroleum or hazardous substances, 10 percent or more underground	Registration, \$100 one time fee plus \$15 annually Obtain insurance	ALPD Hazardous Waste Program	(573) 751-6822	<ul style="list-style-type: none"> • Newly discovered tanks must be registered before removal. • Owners must provide monitoring, record keeping and insurance against leakage. <p>Exemptions: Any tank less than 110 gallons, farm tanks less than 1,100 gallons, on-site use heating oil tanks. Call 1-800-361-4827 to request the technical bulletin <i>Suggestions for Transaction of Properties with USTs</i>.</p>
Underground storage tanks closure and removal	30 day prior notification to closure Corrective action (if leaking)	ALPD Hazardous Waste Program	Closure (573) 751-6822 Leaking UST (573) 526-3352	<ul style="list-style-type: none"> • UST closure notification is required for closure or removal of any tank whether operating or out of use. • ALPD oversees clean up of tank sites where leakage has affected soils.

CONCERN	ACTION OR REQUIREMENT	AGENCY/ CONTACT	PHONE NUMBER	ADDITIONAL INFORMATION
Fuel storage tanks, service stations and bulk plants	Containment impoundment and safety measures	Missouri Dept. of Agriculture	(573) 751-4278	<ul style="list-style-type: none"> Spillage or runoff of petroleum fuels may discharge to surface water and could enter groundwater. Flammable and combustible fuels can catch fire if not adequately protected
Household hazardous waste	Safe storage, use and disposal	OAC Environmental Assistance Office	1-800-361-4827 or (573) 526-6627	<ul style="list-style-type: none"> Many cleaners, paints, veterinary supplies and craft supplies contain hazardous chemicals. Improper disposal can contaminate land, water and wastewater disposal systems.
Hazardous Waste Transporter	License and insurance	ALPD Hazardous Waste Program	(573) 751-3176	Fee depends on vehicle weight. License is for one year.
Pollutant runoff from businesses and manufacturing	Storm water permits	WPSCD Water Pollution Control Program	(573) 751-1300	Permits specify that storm water discharges leaving the site must not cause water quality violations in Missouri streams.
Community Right to Know	Reporting local hazardous materials	Local Emergency Planning Commission (LEPC)	See your local phone book under "Fire Department"	LEPCs maintain an inventory of hazardous materials used or stored in excess of threshold planning quantities in each community.
		State Emergency Management Agency (SEMA)	(573) 526-9100	SEMA manages emergency response to a variety of natural and man-made disasters that can involve hazardous material storage.
	Reporting hazardous material used in manufacturing	OAC Environmental Assistance Office	1-800-361-4827 or (573) 526-6627	EAO maintains the statewide Toxic Release Inventory which lists information on hazardous materials used by manufacturing companies.

Fertilizers and Pesticides

Fertilizers and pesticides can be extremely toxic in undiluted form. If used improperly, such products may affect surface water, groundwater and soil and can impact the health of humans and animals.

CONCERN	ACTION OR REQUIREMENT	AGENCY/ CONTACT	PHONE NUMBER	ADDITIONAL INFORMATION
Old, outdated or unwanted pesticide disposal	Proper disposal	OAC Environmental Assistance Office	1-800-361-4827 or (573) 526-6627	<ul style="list-style-type: none"> • Use up or give usable pesticides to someone who can use them. • If a pesticide is outdated, has been canceled or is otherwise unusable, it must be disposed of as a hazardous waste in many cases.
Storage of fertilizer or pesticides in bulk quantities for more than 30 days	Secondary Containment permit prior to construction	WPSCD Water Pollution Control Program OAC Environmental Assistance Office	(573) 751-1300 1-800-361-4827 or (573) 526-6627	Pesticides include insecticides, herbicides, fungicides and rodenticides. <ul style="list-style-type: none"> • Bulk quantities of registered pesticides are 56 gallons, liquid, or 100 pounds dry weight or more in an individual container or storage tank. • Bulk quantities of fertilizers are 500 gallons, liquid, or 5,000 pounds, dry weight, or more in an individual tank or storage bin.
Restricted use pesticides, private purchase and application	Training for private applicator certification	University of Missouri Outreach and Extension	County office, University Extension Center	Extension provides training to become a certified private applicator. Call the local office to learn when the next classes are scheduled.
Restricted use pesticides, commercial or public uses	Certification and licensing of applicators and dealers	Missouri Dept. of Agriculture, Bureau of Pesticide Control	(573) 751-5504	<ul style="list-style-type: none"> • Commercial or public use pesticide application and purchase of restricted use pesticides require certification. • Dealers must be licensed to sell restricted use pesticides.

CONCERN	ACTION OR REQUIREMENT	AGENCY/ CONTACT	PHONE NUMBER	ADDITIONAL INFORMATION
Pesticide spills, leakage, accidental rupture of container	Hazardous material emergency response, containment and cleanup	ALPD Environmental Emergency Response	24 hours/day (573) 634-2436 non-emergency (573) 526-3315	<ul style="list-style-type: none"> Hazardous materials may include some pesticides, flammable hydrocarbons like crop oils, gasoline and diesel fuel, and reactive or corrosive materials used as fertilizers or for pH adjustment. Be aware of possible chemical interactions.
Worker Protection Standard (WPS) (federal EPA regulation)	Pesticide label and general requirements	Missouri Department of Agriculture, Bureau of Pesticide Control	(573) 751-5504	Labels on containers of pesticides that are affected by WPS carry instructions in the <i>Agricultural Use Directions</i> section.

Solid Waste Disposal and Recycling

Illegal dumps and improper disposal are unsightly and dangerous. Infectious and hazardous materials can cause disease. Odors and vermin breeding are nuisances and some vermin may transmit diseases. Liquid runoff from dump sites affects neighbors and can contaminate surface water and groundwater.

CONCERN	ACTION OR REQUIREMENT	AGENCY/ CONTACT	PHONE NUMBER	ADDITIONAL INFORMATION
Illegal dumps	Closure or waste removal	ALPD Solid Waste Management Program	(573) 751-5401 or Department regional office (www.dnr.state.mo.us/ regions/deqregions.htm)	<ul style="list-style-type: none"> Water contamination, mosquito and vermin breeding and unsightly dump sites are some problems associated with illegal dumps. Regional offices may have information on the location of old, pre-landfill era dumps.

CONCERN	ACTION OR REQUIREMENT	AGENCY/ CONTACT	PHONE NUMBER	ADDITIONAL INFORMATION
Dead animal disposal, agricultural	Burial, incineration or composting within 24 hours of death Rendering is a desirable alternative, if available	Missouri Department of Agriculture	(573) 751-6580 University of Missouri Outreach and Extension Center in your county	<ul style="list-style-type: none"> Dead animals may also be disposed of as solid waste in landfills. Check with the landfill to see if they can accept dead animals. Call EAO at 1-800-361-4827 to request a list of landfills in Missouri. An incinerator must be constructed according to plans approved by University of Missouri Extension. <p>Composting dead farm animals must follow University of Missouri Extension guidelines. Call EAO for information.</p>
Waste tires, disposal or recycling	Hauling and storage permits Disposal requirements Grants for cleanup	ALPD Solid Waste Management Program OAC Environmental Assistance Office	(573) 751-5401 1-800-361-4827 or (573) 526-6627	<p>A waste tire is one that is too worn or defective to be used on a vehicle.</p> <ul style="list-style-type: none"> Hauling or storage of tires is regulated by the department. Burning tires, even in rural areas, is not allowed. Tires must be cut in pieces or processed into chips or shreds for landfill disposal. Cutting tires usually requires special equipment. Some uses or recycling options may be acceptable but may require review of plans by the Solid Waste Management Program. <p>Call EAO to request the free guidebook <i>Preventing Pollution in the Vehicle Maintenance</i>.</p>
Asbestos shingle siding, roofing, flooring, pipe insulation and other asbestos building materials	Removal, disposal	ALPD Air Pollution Control Program ALPD Solid Waste Management Program	Removal (573) 751-4817 Disposal (573) 751-5401	<ul style="list-style-type: none"> Removal is not usually required if materials are sound. The department regulates renovation or repair work that disturbs asbestos and demolition of buildings that contain asbestos. <p>Call EAO at 1-800-361-4827 for the fact sheet <i>Asbestos</i>.</p>

CONCERN	ACTION OR REQUIREMENT	AGENCY/ CONTACT	PHONE NUMBER	ADDITIONAL INFORMATION
Major appliances, lead acid batteries, waste oil	Banned from landfill disposal	ALPD Solid Waste Management Program OAC Environmental Assistance Office	(573) 751-5401 1-800-361-4827 or (573) 526-6627	<ul style="list-style-type: none"> Recycling useful materials like steel or other metals in appliances saves landfill space and the energy it would take to mine and process new metals. Safe disposal of potentially toxic materials like lead and acid in car batteries is important. Refrigerant gases must be properly removed from some appliances like air conditioners and refrigerators. A list of appliance recyclers is available from the Solid Waste Management Program. <p>Call EAO for the fact sheet <i>Prohibition of Major Appliance Disposal in Landfills</i>.</p>
Composting	Permits	ALPD Solid Waste Management Program WPSCD Water Pollution Control Program	(573) 751-5401 (573) 751-1300	<ul style="list-style-type: none"> Home composting of materials generated by the resident does not require a permit. Commercial or municipal composting may require permits depending on the size of the area and the type of materials being composted. <p>Call EAO at 1-800-361-4827 to order a home composting guide or information on composting with earthworms.</p>

Air Pollution

Clean air is something rural inhabitants expect; however, increasing population and business development can have adverse effects on air quality all over Missouri.

CONCERN	ACTION OR REQUIREMENT	AGENCY/ CONTACT	PHONE NUMBER	ADDITIONAL INFORMATION
Asbestos shingle siding, pipe insulation, flooring and other asbestos building materials	Particle control during removal or disposal	ALPD Air Pollution Control Program ALPD Solid Waste Management Program	Removal (573) 751-4817 Disposal (573) 751-5401	<ul style="list-style-type: none"> Removal is not usually required if materials are sound. Renovation, repair work that disturbs asbestos and demolition of buildings that contain asbestos are regulated by the department. <p>Call EAO at 1-800-361-4817 to receive a copy of the fact sheet <i>Asbestos</i>.</p>
Open burning of tires, pesticide containers, trade waste and demolition debris	Prohibited	ALPD Air Pollution Control Program	(573) 751-4817 or Department regional office (www.dnr.state.mo.us/regions/deqregions.htm)	<p>Such materials may emit toxic pollutants.</p> <ul style="list-style-type: none"> Additional city or county restrictions may also apply. Alternatives such as recycling and composting are preferable to open burning of any materials.
Manufacturers and businesses that affect air quality	Permits for construction and operation	ALPD Air Pollution Control Program OAC Environmental Assistance Office	(573) 751-4817 1-800-361-4827 or (573) 526-6627	<ul style="list-style-type: none"> Businesses that emit dust, smoke, combustion gases or volatile chemical fumes may need permits. Minimizing pollutants by improving processes, using less volatile solvents and cleaners and decreasing wastes is called “pollution prevention”. <p>Call EAO for more information on pollution prevention and for assistance with air permit reporting and compliance</p>

Wastewater and Sewage

Many rural properties use individual septic systems or lagoons to treat waste. Malfunctioning wastewater treatment can contaminate soil and groundwater and often discharges to surface water.

CONCERN	ACTION OR REQUIREMENT	AGENCY/ CONTACT	PHONE NUMBER	ADDITIONAL INFORMATION
Onsite wastewater systems receiving 3,000 gallons or less per day of domestic wastewater, such as septic systems and lagoons serving single family residences	State or local permits, site standards, design requirements	Missouri Department of Health Section for Environmental Public Health County or local government health department, public works department or building department	(573) 751-6095 or 1-800-392-0272 (www.health.state.mo.us/AbouttheDepartment/DistrictOfficesMap8-02.pdf) Local numbers	<ul style="list-style-type: none"> The Missouri Department of Health regulates domestic wastewater disposal for small systems. Plans for your system may be on file at your local health department office as part of a permit application, especially if it was installed after Jan. 1, 1996. Prevent damage to your system and discharge of wastewater to adjacent properties by proper maintenance and operation. <p>An <i>On-site Sewage System Guide</i> and guides for various types of treatment systems are available from EAO or the Department of Health. Call EAO at 1-800-361-4827 to request a copy.</p>
Wastewater treatment systems receiving more than 3,000 gallons per day and lagoons treating other than domestic waste	Permits and engineering design requirements Wastewater operator certification	WPSCD Water Pollution Control Program OAC Environmental Assistance Office	(573) 751-1300 1-800-361-4827 or (573) 526-6627	<ul style="list-style-type: none"> WPCP requires proper design, installation and operation of wastewater treatment facilities. Municipal or public operator certification is required for systems serving 200 persons or 50 houses or more. <p>Call EAO for assistance to local governments and other interested groups in creating new sewer districts and funding construction of wastewater treatment systems.</p>

CONCERN	ACTION OR REQUIREMENT	AGENCY/ CONTACT	PHONE NUMBER	ADDITIONAL INFORMATION
Sewage sludge and septic tank contents disposal	Permits for land application of sewage sludge and septic waste	WPSCD Water Pollution Control Program	(573) 751-1300	<ul style="list-style-type: none"> Land application of biosolids such as sludge and septic tank contents saves landfill space and can improve soil. <p>For additional information and publications on biosolids management contact EAO at 1-800-361-4827.</p>

Streams, Lakes and Wetlands

Bodies of water provide recreation, drinking water storage, wildlife habitat and transportation in Missouri. Construction and other disturbance in or near water can affect water quality, volume or speed of flow, and habitat protection.

CONCERN	ACTION OR REQUIREMENT	AGENCY/ CONTACT	PHONE NUMBER	ADDITIONAL INFORMATION
Commercial gravel and sand surface mining except sand removal from the Mississippi and Missouri rivers	Permit	ALPD Land Reclamation Program	(573) 751-4041	<ul style="list-style-type: none"> Stream bank erosion and aquatic habitat destruction can result from improper mining of sand and gravel. Suspended soil in water is a pollutant that can kill fish. Approval from the U.S. Army Corps of Engineers may also be required. <p>Call EAO at 1-800-361-4827 to request the publication, <i>Pollution Prevention and Environmental Compliance Guide on Sand and Gravel Removal</i>.</p>

CONCERN	ACTION OR REQUIREMENT	AGENCY/ CONTACT	PHONE NUMBER	ADDITIONAL INFORMATION
Excavating, filling, or construction in a stream, river, lake or wetland	401 Certification 404 Permit	WPSCD Water Pollution Control Program U.S. Army Corps of Engineers	(573) 751-1300 Your District Office	<ul style="list-style-type: none"> Bridges, retaining walls, bank stabilization and levees are some examples of 401/404 projects. Channelization has severe impacts on streams. <p>There are portions of five U.S. Army Corps of Engineer districts within Missouri. Call EAO 1-800-361-4827 for information (map available).</p>
Dam construction, registration and safety	Permit	GSRAD	(573) 368-2175	<ul style="list-style-type: none"> Dams taller than 35 feet from toe of slope to embankment top are regulated. Federal and agricultural dams may request exemption. Owners of smaller dams can get information on dam safety and maintenance.
Corps of Engineers lakes and public lands	Permits, restrictions	U.S Army Corps of Engineers	District offices	Kansas City District, (816) 983-3537 Little Rock District (501) 324-5551 St. Louis District (314) 331-8000
Streams and stream wildlife	Protection and management	Missouri Department of Conservation	(573) 751-4115 Ask operator for private land assistance	Private land assistance can help rural landowners with many aspects of land management and wildlife preservation and protection. Regional and county offices provide one on one service.

Soil Erosion and Land Disturbance

Soil erosion is a source of water pollutants and diminishes the value of land. Some land disturbance may cause dangerous instability.

CONCERN	ACTION OR REQUIREMENT	AGENCY/ CONTACT	PHONE NUMBER	ADDITIONAL INFORMATION
Soil erosion	Cost share	WPSCD Soil and Water Conservation Program County soil and water conservation district office	(573) 751-4932 Call local county office of the US Department of Agriculture (USDA)	<ul style="list-style-type: none"> • Cost share partially funds erosion control projects or practices on agricultural land. • Design and planning assistance is available from the Natural Resources Conservation Service. <p>Soil and water conservation district offices are located in most county seats, usually with the USDA office.</p>
Abandoned mines, surface or shaft type	Reclamation	ALPD Land Reclamation Program	(573) 751-4041	<ul style="list-style-type: none"> • Erosion, acid runoff, metal contamination, possible collapse and unstable soils are potential problems. • Some sites may have bonds available to fund reclamation.
Land disturbance for construction, one acre or more	Storm water permit	WPSCD Water Pollution Control Program	(573) 751-1300	<ul style="list-style-type: none"> • The permit requires erosion control practices. • Agricultural plowing is exempt. • Some agriculture-related construction activities may require a permit such as building a feedlot. <p>Call EAO 1-800-361-4827 for the technical bulletin <i>Land Disturbance Permits</i>.</p>
Major construction	Geologic field investigation	GSRAD	(573) 368-2161	<p>GSRAD evaluates sites for collapse potential, soil characteristics and subsurface water movement.</p> <p>Large structures such as lagoons and sanitary landfills that cover acres are some examples of major construction. Early evaluation prevents wasted time on poor sites.</p>

Frequently Used Department of Natural Resources Phone Numbers

Toll-free	Department of Natural Resources	1-800-361-4827
Parks Toll-free	Division of State Parks	1-800-334-6946
EIERA	Environmental Improvement and Energy Authority	(573) 751-4919
ALPD	Air and Land Protection Division	(573) 751-6892
	APCP Air Pollution Control Program	(573) 751-4817
	ESP Environmental Services Program	(573) 526-3315
	HWP Hazardous Waste Program	(573) 751-3176
	LRP Land Reclamation Program	(573) 751-4041
	SWMP Solid Waste Management Program	(573) 751-5401
WPSCD	Water Protection and Soil Conservation Division	(573) 751-1300
	PDWP Public Drinking Water Program	(573) 751-5331
	SWCP Soil and Water Conservation Program	(573) 751-4932
	WPCP Water Pollution Control Program	(573) 751-1300
	JCRO Jefferson City Regional Office	(573) 751-2729
	KCRO Kansas City Regional Office	(816) 622-7000
	NERO Northeast Regional Office	(660) 385-2129
	SERO Southeast Regional Office	(573) 840-9750
	SWRO Southwest Regional Office	(417) 891-4300
	SLRO St. Louis Regional Office	(314) 416-2960
	Regional Office Map	www.dnr.state.mo.us/regions/deqregions.htm
GSRAD	Geologic Survey and Resource Assessment Division	(573) 368-2100
	Water Resources Program	(573) 751-2867
	Well Drillers' Unit	(573) 368-2165
DSP	Division of State Parks	(573) 751-2479
	Capitol Information Desk/Tour Guides	(573) 751-4127

OAC	Outreach and Assistance Center	(573) 751-3443
	Communications and Education Office	(573) 751-3443
	Community Assistance Office	(573) 751-3443
	MEC Missouri Energy Center	(573) 751-3443
	Low Income Weatherization Program	(573) 751-3443
	Environmental Assistance Office	(573) 526-6627
	Historic Preservation Office	(573) 751-7858
	Kansas City Urban Outreach Office	(816) 759-7313
	St. Louis Urban Outreach Office	(314) 340-5900

Other Missouri Agencies

Office of the Governor	(573) 751-3222
Secretary of State's Office	(573) 751-4936
Attorney General's Office	(573) 751-3321
Fraud Hotline	1-800-392-8222
Department of Health & Senior Services	(573) 751-6400
District Office Map	www.health.state.mo.us/AbouttheDepartment/DistrictOfficesMap8-02.pdf
Department of Conservation	(573) 751-4115
Department of Agriculture	(573) 751-2477
Relay Missouri Communications Service	
TT	1-800-735-2966
Voice	1-800-735-2466

Visit the department Web page at www.dnr.state.mo.us and the state of Missouri Web page at www.state.mo.us.